



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,987	01/29/2004	Walter Schicketanz	54256	2868

7590 04/19/2006

Herbert B. Keil
KEIL & WEINKAUF
1350 Connecticut Ave., N.W.
Washington, DC 20036

EXAMINER

SUERETH, SARAH ELIZABETH

ART UNIT	PAPER NUMBER
----------	--------------

3749

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No.	Applicant(s)	
	10/765,987	SCHICKETANZ, WALTER	
	Examiner	Art Unit	
	Sarah Suereth	3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/11/04&1/29/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Determining the hottest temperature in the heterogeneously catalyzed gas-phase oxidation is critical or essential to the practice of the invention, but is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "and/or" renders the claim indefinite because it is unclear whether all the limitations following the phrase are part of the claimed invention.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4, 5, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Meier zu Koecker et al 4528170.

5. Regarding claims 1 and 2, Meier zu Koecker discloses a process for burning in a combustion chamber an exhaust gas containing oxygen and a combustible component (col. 2, lines 14-16), which exhaust gas originates from the heterogeneously catalyzed gas-phase oxidation of an organic compound (col. 1, lines 54-56), which comprises heating the exhaust gas to a temperature in the range from 300C to a temperature which corresponds to the hottest temperature in the heterogeneously catalyzed gas-phase oxidation and is above 300C (col. 1, line 57), and feeding the exhaust gas at this temperature to the burner head (col. 3, lines 35-40).

6. Regarding claim 4, the specific range disclosed by Meier zu Koecker is 540C to 600C (col. 8, line 23), which is below the lower explosive limit.

7. Regarding claim 5, the exhaust gas (Fig. 1, element 1) is heated by a heat exchanger (Fig. 1, element 2) which is heated by the flue gas being liberated by combustion (Fig. 1, element A).

Art Unit: 3749

8. Regarding claim 8, Meier zu Koecker discloses a process for treating: n-butane and isobutene (col. 2, line 35), o-xylene (col. 2, lines 39, 40), propane (col. 2, line 47), and ethylene oxide (col. 2, line 51).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meier zu Koecker.

12. As noted above in the 35 U.S.C. 102(b) rejection, Meier zu Koecker discloses a temperature range for a combustion burning process, but not the narrower range claimed in claim 3.

13. However, the courts have held that changing temperature is an unpatentable modification, unless new and unexpected results occur. The results must be different in

Art Unit: 3749

kind and not just in degree (In Re Aller, also MPEP 2144.05 II). Applicant discloses that the narrowest range in claim 3 is preferred because a higher temperature decreases the level of contamination present in the gas stream (page 5, lines 29-31 of the specification). This is not a new and unexpected result.

14. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Meier zu Koecker invention by varying the temperature range of operation in order to optimize the range.

15. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meier zu Koecker in view of Colagiovanni 5297954.

16. Meier zu Koecker, as discussed above, discloses the claimed limitations with the exception of a bypass valve used to control the temperature of the exhaust gas.

17. Colagiovanni discloses an apparatus for treating pollutants including a temperature sensor (22), a bypass valve (20), and a heat exchanger (18). The temperature sensor measures the temperature of the gas stream, and the bypass valve is used to redirect some of the hot gases away from the heat exchanger in order to control the temperature of the gas stream (col. 3, lines 40-45).

18. Regarding claim 7, the temperature at the outlet of the heat exchanger is controlled via the volumetric flow rate of the flue gases (col. 2, lines 46-51). As the volume of the flue gases passing through the bypass valve increases, the temperature at the outlet of the heat exchanger must necessarily decrease because a greater percentage of the now combined flow was not warmed in the heat exchanger.

Art Unit: 3749

19. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Meier zu Koecker invention with the temperature control system of Colagiovanni in order to control the temperature of the gas entering the combustion chamber (col. 3, lines 12-15).

Conclusion

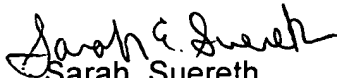
20. The prior art made of record on the attached form PTO-892 and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah Suereth whose telephone number is (571) 272-9061. The examiner can normally be reached on Monday to Thursday 7:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on (571) 272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3749

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sarah Suereth
Examiner
Art Unit 3749



EHUD GARTENBERG
SUPERVISORY PATENT EXAMINER